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	Application Number		09684305
INFORMATION PION COURT	Filing Date		2000-10-06
INFORMATION DISCLOSURE	First Named Inventor Kaiser, et al.		r, et al.
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		1637
(Notice submission under or or it not)	Examiner Name	Staple	es, M.
	Attorney Docket Number	er	FORS-04447

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First Named Inventor Kaiser		r, et al.	
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Attorney Docket Number		FORS-04447	

1	Hosfield, et al. "Newly Discovered Archaebacterial Flap Endonucleases Show a Structure-Specific Mechanism for DNA Substrate Binding and Catalysis Resembling Human Flap Endonuclease-1" J. Biol. Chem., 1998, Vol. 273, No. 42, pp. 27154-61	
2	Hosfield, et al. "Structure of the DNA Repair and Replication Endonuclease and Exonuclease FEN-1: Coupling DNA and PCNA Binding to FEN-1 Activity" Cell 95:135-146 (1996)	
3	Huang, et al. "Role of Calf RTH-1 Nuclease in Removal of 5'-Ribonucleotides during Okazaki Frament Processing," Biochemistry 35:9266-9277 (1996)	
4	Hwang, et al. "The crystal structure of flap endonuclease-1 from Methanococcus jannaschii," Nature Structural Biology 5:707-713 (1998)	
5	Inchauspe, et al. "Use of Conserved Sequences from Hepatitis C Virus for the Detection of Viral RNA in Infected Sera by Polymerase Chain Reaction," Hepatology 14:595-600 (1991)	
6	Ito, et al. "Compilation and alignment of DNA polymerase sequences," Nucl. Acids Res. 19:4045-4057 (1991)	
7	Johnson, et al. "Requirement of the Yeast RTH1 5' to 3' Exonuclease for the Stability of Simple Repetitive DNA," Science 269:238-240 (1995)	
8	Kaledin, et al. "Isolation and Properties of DNA Polymerase From the Extremely Thermophilic Bacterium Thermus flavus," Biokhimiya 46(9):1576-1584 (1981)	
9	Kim, et al. "Crystal structure of Thermus aquaticus DNA polymerase," Nature 376:612-616 (1995)	
10	Klenk, et al. "The complete genome sequence of the hyperthermophilic, sulphate-reducing archaeon Archaeoglobus fulgidus" (1997) Nature 390, 364-370	
11	Kornberg, DNA Replication, W.H. Freeman and Co., San Francisco, pp. 127-139 (1980)	

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First Named Inventor Kaiser		r, et al.	
Art Unit		1637	
Examiner Name Staple		es, M.	
Attorney Docket Number		FORS-04447	

12	Kotler, et al. "DNA sequencing: Modular primers assembled from a library of hexamers or pentamers," Proc. Natl. Acad. Sci. USA 90:4241-4245 (1993)	
13	Kwoh, et al. "Transcription-based amplification system and detection of amplified human immunodeficiency virus type 1 with a bead-based sandwich hybridization format," Proc. Natl. Acad. Sci., 86:1173-1177 (1989)	
14	Kwok, et al. "Effects of primer-template mismatches on the polymerase chain reaction: Human immunodeficiency virus type 1 model studies," Nucl. Acids Res., 18:999-1005 (1990)	
15	Laemmli "Cleavage of Structural proteins during the Assembly of the Head of Bacteriophage T4," Nature 277:680-685 (1970)	
16	Landegren "Molecular mechanics of nucleic acid sequence amplification," Trends in Genetics 9:199-204 (1993)	
17	Lawyer, et al. "Isolation, Characterization, and Expression in Escherichia coli of the DNA Polymerase Gene from Thermus aquaticus," J. Biol. Chem. 264:6427-6437 (1989)	
18	Lee, et al. "Polymerase chain reaction in detection of CMV DNA in renal allograft recipients," Aust. NZ J. Med. 22:249-255 (1992)	
19	Leirmo, et al. "Replacement of Potassium Chloride by Potassium Glutamate Dramatically Enhances Protein-DNA Interactions in Vitro," Biochem. 26:2095-2101 (1987)	
20	Li, et al. "Lagging Strand DNA Synthesis at the Eukaryotic Replication Fork Involves Binding and Stimulation of FEN-1 by Proliferating Cell Nuclear Antigen," J. Biol. Chem. 270:22109-22112 (1995)	
21	Lieber "The FEN-1 family of structure-specific nucleases in eukaryotic DNA replication, recombination and repair" BioEssays 19:233-240 (1997)	
22	Lindahl, et al. "Deoxyribonuclease IV: A New Exonuclease From Mammalian Tissues," P.N.A.S. 62:597-603	

Application Number		09684305	
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First Named Inventor Kaise		r, et al.	
Art Unit		1637	
Examiner Name Staple		es, M.	
Attorney Docket Number		FORS-04447	

23	Lindahl, et al. "Heat-Induced Depyrimidination of Deoxyribonucleic Acid in Neutral Solution," Biochem. 12:5151-5154 (1973)	
24	Longley, et al. "Characterization of the 5' to 3' exonuclease associated with Thermus aquaticus DNA polymerase," Nucl. Acids Res. 18:7317-7322 (1990)	
25	Lundquist, et al. "Transient Generation of Displaced Single-Stranded DNA during Nick Translation," Cell 31:53-60	
26	Lyamichev, et al. "Polymorphism identification and quantitative detection of genomic DNA by invasive cleavage of oligonucleotide probes" NATURE BIOTECHNOLOGY, NATURE PUBLISHING, US, vol. 17, no. 3, March 1999 (1999-03), pages 292-296	
27	Lyamichev, et al. "Structure-Specific Endonucleolytic Cleavage of Nucleic Acids by Eubacterial DNA Polymerases," Science 260:778-783 (1993)	
28	Marmur, et al. "Strand Separation and Specific Recombination in Deoxyribonucleic acids: Biological Studies," Proc. Natl. Acad. Sci. USA 46:453-461 (1960)	
29	Mathur, et al. "The DNA polymerase gene from the hyperthermophilic marine archaebacterium Pyrococcus furiosus, shows sequence homology with α -like DNA polymerases," Nucl. Acids Res. 19:6952 (1991)	
30	Mullis "The Polymerase Chain Reaction in an Anemic Mode: How to Avoid Cold Oligodeoxyribonuclear Fusion," PCR Methods Applic., 1:1-4 (1991)	
31	Mullis, et al. "Specific Synthesis of DNA in Vitro via a Polymerase-Catalyzed Chain Reaction," Methods in Enzymology 155:335-350 (1987)	
32	Murante, et al. "The Calf 5'- to 3'-Exonuclease Is Also an Endonuclease with Both Activities Dependent on Primers Annealed Upstream of the Point of Cleavage," J. Biol. Chem. 269:1191-1196 (1994)	
33	Murante, et al. "Calf 5' to 3' Exo/Endonuclease Must Slide from a 5' End of the Substrate to Perform Structure-specific Cleavage," J. Biol. Chem. 270:30377-30383 (1995)	

Application Number		09684305	
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First Named Inventor Kaisei		r, et al.	
Art Unit		1637	
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Attorney Docket Number		FORS-04447	

34	Murray, et al. "Structural and Functional Conversation of the Human Homolog of the Schizosaccharomyces pombe rad2 gene, Which is Required for Chromosome Segregation and Recovery from DNA Damage," Molecular and Cellular Biology 14:4878-4888 (1994)	
35	Myers, et al. "Reverse Transcription and DNA amplification by a Thermus thermophilus DNA Polymerase," Biochem. 30:7661-7666 (1991)	
36	Nelson, et al. "A General Method of Site-Specific Mutagenesis Using a Modification of the Thermus aquaticus Polymerase Chain Reaction," Analytical Biochem. 180:147-151 (1989)	
37	Nielsen, et al. "Peptide nucleic acids (PNAs): Potential anti-sense and anti-gene agents," Anticancer Drug Des. 8:53 63 (1993)	
38	Nolan, et al. "Kinetic Analysis of Human Flap Endonuclease-1 by Flow Cytometry," Biochemistry 35:11668-11677 (1996)	
39	Nugent , et al. "Characterization of the Apurinic Endonuclease Activity of Drosophila Rrpl," Biochemistry 32:11445-11452 (1993)	
40	Perler, et al. "Intervening sequences in an Archaea DNA polymerase gene," Proc. Natl. Acad. Sci. USA 89:5577-5581 (1992)	
41	Pontius, et al. "Rapid renaturation of complementary DNA strands mediated by cationic detergents: A role for high-probability binding domains in enhancing the kinetics of molecular assembly processes," Proc. Natl. Acad. Sci. USA 88:8237-8241 (1991)	
42	Rao, et al. "Methanococcus jannaschii Flap Endonuclease: Expression, Purification, and Substrate Requirements," J. of Bacteriology 180:5406-5412	
43	Reagan, et al. "Characterization of a Mutant Strain of Saccharomyces cerevisiae with a Deletion of the RAD27 Gene, a Structural Homolog of the RAD2 Nucleotide Excision Repair Gene," J. of Bacteriology 177:364-371 (1995)	
44	Saiki, et al. "Primer-Directed Enzymatic Amplification of DNA with a Thermostable DNA Polymerase," Science 239:487-491 (1988)	

Application Number		09684305	
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First Named Inventor Kaiser		r, et al.	
Art Unit		1637	
Examiner Name Staple		es, M.	
Attorney Docket Number		FORS-04447	

	45	Sambrook, et al. Molecular Cloning. A Laboratory Manual, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, pp. 1.63-1.69 (1989)						
	46		porn, et al. "A novel transcription property of SP6 and T7 RNA polymerases: dependence on template structure" cids. Res. 13:6223-6236, 6223 (1985)					
	47		, et al. "Deoxyribonucleic Acid Polymerase: Two Distinct Enzymes in One Polypeptide," J. Biol. Chem. 2-240 (1972)					
	48	Shen, et al. "Essential Amino Acids for Substrate Binding and Catalysis of Human Flap Endonuclease 1" J. of Biol. Chem. 271:9173-9176 (1996)						
	49	Shen, et al. "Flap endonuclease homologs in archaebacteria exist as independent proteins," TIBS 23 (1998)						
	Shen, et al. "Functional analysis of point mutations in human Flap Endonuclease-1 active site," Nucleic Acids Res. 25:3332-8 (1997)							
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